ONLINE TRADING SYSTEM

This application claims the benefit of Japanese Patent Application No. 2000-233266 filed August 1, 2000.

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0001] The present invention relates to an online trading system for extensively inviting purchasers by showing an article to the public online, and concluding a deal quickly by putting up an article to an auction after showing the article to the public for a predetermined period.

2. Description of the Related Art

[0002] In a conventional auction for used automobiles (used cars) and the like, it is a common practice for a participant at the auction (a seller) to bring a used car to a predetermined auction site by transportation means such as land transportation, and to put up the used car for auction there. For example, in the Japanese Patent Application Laid-open No. Hei 11-328271, an auction system is proposed in which purchasers can participate in an auction without actually visiting an auction site by providing the purchasers with information on an object (a used car) via communication lines by a terminal installed in a remote location, and receiving bid submission via the same communication lines.

[0003] Additionally, an online trade is known in which a used car is shown to the public online, and a purchaser confirms the condition and a sales price of the used car that is made open to the public and like other information online to order the car.

[0004] According to the auction system described in the Japanese Patent Application Laid-open No. Hei 11-328271,

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purchasers can participate in an auction from a remote location. However, since the auction is held on a real time basis, the purchasers may not be able to participate in the auction if the schedule of the auction does not suit them.

[0005] In addition, in the case of an online trade for showing an article to the public online, although purchasers can participate whenever it suits them while the article is exhibited, if the period of exhibition is too long, circulation of articles (cars) will stagnate.

[0006] Particularly, if the seller is a company, since costs are significant for storing and keeping automobiles that are high-priced and large articles, it is desired that a successful bid be made in a short time.

[0007] In addition, even in the case of an auction for trades between individuals, if it takes a long time until a successful bid is made, the value of an article may decline when the next compulsory safety check of the car comes nearer or a car model is changed. Therefore, it is desired that a successful bid is made in a short time.

SUMMARY OF THE INVENTION

[0008] The present invention has been made in view of the above, and an object of the present invention is therefore to provide an online trading system that is capable of extensively inviting purchasers by showing an article to the public online, and concluding a deal quickly by putting up the article to auction after showing the article for a predetermined period.

[0009] The online trading system according to the present invention adopts a configuration described in the following items (1) through (9).

[0010] (1) An online trading system comprising:

sale receiving means for receiving submission of an article for sale;

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information inputting means for inputting information related to the article for sale;

information storing means for storing the information related to the article for sale;

auction selecting means for selecting an auction at which the article is to be auctioned;

information showing means for showing the information related to the article to the public via communication means;

purchase receiving means for receiving an application for purchase of the article; and

auction instruction information outputting means for instructing a seller to put up the article to the auction selected by the auction selecting means if no purchase application has been received within a predetermined period or prior to a predetermined date and time.

[0011] This configuration enables a deal to be concluded quickly by extensively inviting purchasers through showing an article to the public via the communication means and allowing the purchasers to access the information whenever it suits them and, putting up the article to an auction if there is no purchaser during a predetermined period.

[0012] (2) An online trading system comprising:

sale receiving means for receiving submission of an article;

information inputting means for inputting information related to the article for sale;

information storing means for storing the information related to the article for sale;

information showing means for showing information related to the article to the public via communication means;

purchase receiving means for receiving an application for purchase of the article; and

auction selecting means for selecting an auction at which the article is to be auctioned if no purchase application has

been received within a predetermined period or prior to a predetermined date and time.

[0013] Although this is a simple configuration, as in the above-mentioned configuration (1), it enables a deal to be concluded quickly while extensively inviting purchasers.

[0014] (3) An online trading system comprising:

sale receiving means for receiving submission of an article for sale;

information inputting means for inputting information related to the article for sale;

information storing means for storing the information related to the article for sale;

auction selecting means for selecting an auction at which the article is to be auctioned;

information showing means for showing the information related to the article to the public via communication means;

prior bid receiving means for receiving a bid for the article via the communication means;

bid submission receiving means for receiving bid submission for the article at the auction; and

successful bid determining means for determining a successful bid based on the information received by the prior bid receiving means and the information received by the bid submission receiving means.

[0015] This configuration enables a deal to be concluded quickly and at a reasonable price by extensively inviting purchasers by prior bid via the communication means in which purchasers are allowed to bid whenever it suits them, and by holding an auction after the lapse of a predetermined period.

[0016] (4) An online trading system as described above, whereby the successful bid determining means compares the bid submission of the highest price received by the prior bid receiving means with the bid submission of the highest price received by the bid submission receiving means and determines

the higher price of the two submissions to ensure the article is sold at the highest price.

[0017] This configuration enables a deal to be concluded quickly and at a reasonable price as in the above (3).

[0018] (5) An online trading system as described above, further comprising:

unit price storing means for storing a unit price of bidding up, whereby, if the article is to be sold to a bid submission received by the prior bid receiving means, the successful bid determining means determines a successful bid price by adding the unit price to the highest price of the bid submission received by the bid submission receiving means.

[0019] This configuration enables a bidder to trade at a reasonable price as in the case of participating in an actual auction even if the bidder has made a successful bid by presenting an excessively high bid price at the time of a prior bid.

[0020] (6) An online trading system as described above, further comprising:

unit price storing means for storing a unit price of bidding up; and

starting price storing means for storing a starting price of the auction, whereby if there is no bid submission at the auction but a bid submission is received via the communication means, the successful bid determining means determines a successful bid price by adding the unit price to the starting price.

[0021] This configuration enables a bidder to trade at a reasonable price as in the case of participating in an actual auction even if the bidder has made a successful bid by presenting an excessively high bid price at the prior bid.

[0022] (7) An online trading system as described above, whereby the information showing means shows the information of

the article to the public for a predetermined number of days and hours before the date the article is to be auctioned.

[0023]   This configuration increases a business opportunity by showing the information of the article to the public for the predetermined period and allowing access to the information whenever it suits a purchaser.

[0024]   (8) An online trading system as described above, whereby the information showing means shows the information of the article to the public starting on a predetermined day before the article is to be auctioned.

[0025]   This configuration increases a business opportunity by showing the information of the article to the public for the predetermined period and allowing access to the information whenever it suits a purchaser. In addition, an appropriate period can be set easily by uniquely defining the date for showing the information based on the date of the auction.

[0026]   (9) An online trading system as described above, whereby the article is a used car, and the information to be shown by the information showing means includes at least one of: a manufacturer, a model, a car name, a grade, a body type, a use, an exterior color, a manufacturer's color number, an interior color, a body number, an engine displacement volume, the next compulsory safety check date, a mileage, required fuel, transmission, equipment, the quickest possible delivery date, a selling point, a photo, and a safety check certificate.

[0027]   This configuration enables a deal to be concluded quickly by putting up a used car to an auction while increasing a business opportunity by extensively inviting purchasers in used car trading, which tends to be largely affected by purchaser's personal preferences. Therefore, this configuration makes it possible to control costs for storing and keeping a used car.

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[0028]   Other and further objects of this invention will become obvious upon an understanding of the illustrative embodiments about to be described or will be indicated in the appended claims, and various advantages not referred to herein will occur to one skilled in the art upon employment of the invention in practice.

BRIEF DESCRIPTION OF THE DRAWINGS

[0029]   In the accompanying drawings:

Fig. 1 is a schematic diagram illustrating a first embodiment of the present invention;

Fig. 2 shows a display example of article information and the like;

Fig. 3 is a schematic diagram illustrating a second embodiment of the present invention; and

Fig. 4 shows a display example of article information and the like.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

<First Embodiment>

[0030]   Fig. 1 shows an embodiment of the present invention as it relates to an online trading system of used cars.

[0031]   Reference symbol 1 denotes a server provided with the system, reference symbol 2 denotes communication means such as the public switched telephone network connected to the server 1, reference symbol 3 denotes terminals used by sellers to make submissions for sale to the system, reference symbol 4 denotes terminals of purchasers who apply for purchase of the article to the system, and reference symbol 5 denotes auction sites where auctions are held on a real time basis.

[0032]   The server 1 is provided with: sale receiving means 1a for receiving submission of an article for sale (a used car) from a seller terminal 3; information inputting means 1b for inputting information related to the article (car

information); auction selecting means 1c for selecting an auction 5 at which the used car is to be auctioned; information showing means 1d for showing the car information to the public via the communication means 2; purchase receiving means 1e for receiving an application for purchase of the used car; auction instruction information outputting means 1f for instructing a seller to put up the used car to the auction selected by the auction selecting means 1c if no application for purchase is received within a predetermined period or prior to a predetermined date and time; information storing means 1g for storing the car information inputted by the information inputting means 1b; and the like.

[0033]   Although it is desired for this system to be of closed membership in which sellers and purchasers are registered in advance as members, if authentication is possible by inputting an address, a name, a credit card number and the like, the general public may be allowed to participate in the system.

<Submission for selling or buying an article>

[0034]   The seller accesses the server 1 from a seller terminal 3 via the communication means 2, the seller inputs a membership number or the like for authentication, and makes submission for the sale of an article to the sale receiving means 1a.   In making submission for sale, the seller inputs information (car information) via the seller terminal 3 to the information inputting means 1b.   The car information may include a manufacturer, a model, a car name, a grade, a body type (distinction among coup, sedan, wagon and the like), a use, an exterior color, a manufacturer's color number, an interior color, a body number, an engine displacement volume, the next compulsory safety check, a mileage, required fuel, a transmission type (such as automatic, floor shift and column shift), equipment, the quickest possible delivery date, a selling price at the time of the showing to the public, a starting price (minimum opening bid), when the article is to

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be put up to the auction, a selling point, a photo, a safety check information and the like. The sale receiving means 1a registers the car information, a membership number or a name of the seller, and assigns a car management number for associating the information to manage the car in a car information database of the information storing means 1g.

[0035]   Further, input of the car information may be conducted by a management company managing the system whereby the seller mails a predetermined document containing all the pertinent information to the management company.

[0036]   Upon submission for sale, the auction selecting means 1c notifies the seller terminal 3 of information of the auctions at which the seller's car can be auctioned by displaying the information on the screen of the seller terminal 3, and requires the seller to select an auction at which the car will be auctioned. The result of the selection is stored in the information storing means 1g. Further, if the seller knows information on an auction to be held in advance, auction names and the like can be supplied by the seller via seller terminal 3 and communicated via the communication means 2 to the server 1 together with the car information and read by the auction selecting means 1c to be stored in the information storing means 1a, thus the auction information does not need to be provided to sellers every time submission for sale is made.

[0037]   In addition, upon registering the article information, an opening date and a closing date for showing the article to the public are calculated by the sale receiving means 1a. These dates are registered in the information storing means 1g. The opening date may be calculated based on a registration date, for example. By way of another example, the opening date may be determined by counting backward from the date at which the car is to be auctioned. For example, the showing period may be Monday through Friday of the week

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prior to the auction.

<Application for purchase>

[0038]   The server 1 provides retrieval service to purchasers in order to show the car to the public.   The retrieval service is preferably constructed such that a purchaser accesses the information showing means 1d via a purchaser terminal 4 through the communication means 2, and retrieves information in the car database of the information storing means 1g with a car name, a grade, engine displacement volume and the like as keywords.

[0039]   The car information is transmitted to the purchaser terminal 4 by the retrieving means.   Fig. 2 shows an example of the information that can be transmitted to the purchaser terminal 4, in an HTML format.

[0040]   If the purchaser desires to purchase a viewed car, the purchaser presses (clicks) a "purchase" button on the screen of the purchaser terminal 4.

[0041]   In this way, the purchaser terminal 4 notifies the server 1 of the purchase, and the purchase receiving means 1e receives the notice and requests information necessary for identifying the purchaser such as a membership number, an address, a name, and the like.   Then, the server 1 moves the record of the car database in the information storing means 1g to a sold car database while associating the record with the identifying information of the purchaser.   The purchase receiving means 1e notifies the seller terminal 3, together with the information identifying the purchaser, that an application for purchase has been received.   Further, by way of example only, the notice may be sent to the seller by mail, fax or the like.

<Processing after the lapse of the showing period>

[0042]   Submission for sale and application for purchase are thus received at any time.   In addition, the auction instruction information outputting means 1f checks the car

database daily, for example, and moves the records associated with cars that have reached their public showing closing date to a to-be-auctioned database. Also, the auction instruction information outputting means 1f outputs information to instruct the seller to put up the car to an auction by an e-mail, a facsimile or the like, and at the same time, transmits the car information to the corresponding auction site 5 such that the car is auctioned at the auction selected at the time of registration.

[0043]   In this way, according to this embodiment, an article is shown to the public for a predetermined period and purchasers are allowed to access related information whenever it suits them, thereby extensively inviting purchasers. Additionally, after the lapse of the predetermined period, the article is put up to an auction, so that the article can be sold quickly. Therefore, circulation of cars is facilitated, and costs for storing and keeping cars can be controlled.

[0044]   In addition, an article can be sold quickly while obtaining an opportunity for selling at a desired price by showing the article to the public for the predetermined period with the desired sales price being presented, and subsequently exhibiting at an auction after the lapse of the predetermined period.

[0045]   Further, although an auction is determined when the car information is inputted, and the auction instruction information outputting means 1f instructs the seller to put up the car to the auction on the public showing closing date, the system according to the present invention is not limited to this embodiment. For example, the system may be configured without the exhibition instructing information outputting means 1f, such that the seller is required to access the server 1 after receiving a notice on the public showing closing date, specifying his or her car by the car management number. The seller then selects an auction by the auction

selecting means 1c.

<Second Embodiment>

[0046] Fig. 3 is a schematic diagram illustrating a second embodiment of the present invention. In this embodiment, a system is provided in which a prior bid has been made, an auction is held after the lapse of a predetermined period, the price of the prior bid is compared with the highest auction bid, and the higher price of the two is determined to be the successful bid price. Further, elements identical with those of the first embodiment are denoted by the same reference symbols and their descriptions are omitted in this embodiment.

[0047] Reference symbol 1' is a server provided with the system which includes: the sale receiving means 1a; the information inputting means 1b; and auction selecting means 1c' through which the seller selects where the article is to be auctioned and the organizer of the auction is notified that the car is to be put up to the auction. In addition, the server 1' is also provided with: information showing means 1d' that shows the car information to the public including the fact that the car is to be put up to the auction; prior bid receiving means 1h for receiving a prior bid for the car; and information storing means 1g' that stores the car information, such as a prior bid price and the like.

[0048] Management apparatuses (computers) are provided at the auction sites 5 for conducting an auction based on the car information sent from the auction selecting means 1c' of the server 1. Each of the management apparatuses is provided with: auction information disclosing means 5a for disclosing information such as a date when the auction is to be held, and the like, to the server 1; displaying means 5b for displaying car information and the like; bid submission receiving means 5c for receiving bid submission; and successful bid determining means 5d for comparing the highest price prior bid submission with the highest price auction bid submission, and

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determining the higher to be the successful bid.

[0049] The seller accesses the server 1' from the seller terminal 3 via a communication means 2, inputs a membership number and the like for authentication, and submits an article for sale to the sale receiving means 1a. The input of the car information in this embodiment is different from the first embodiment in that a starting price at the prior bid (the lowest acceptable bid) is inputted instead of inputting a selling price, but the rest of the information to be inputted is the same.

[0050] The car information is registered in the car information database of the information storing means 1g' while associating the information with a seller membership number or name.

[0051] Upon submission for sale of the article, the auction selecting means 1c presents to the seller, on the seller terminal 3, auction information related to the auction sites 5 such as name, site, date, number of times auctioned and the like. The seller is then required to select one of the available auction sites 5 via the seller terminal 3. Then, the auction selecting means 1c transmits the car and seller information on the seller to one of the auction sites 5, or to an organizer of the auction where the selected auction is to be held.

[0052] In addition, upon submission for sale, an opening date and a closing date for public showing of the article are calculated by the sale receiving means 1a, and are registered in the information storing means 1g'. The opening date may be calculated based on a registration date. Alternatively, the opening date may be determined by counting backward from the selected auction date. For example, the showing period may be Monday through Friday in the week prior to the auction. In this embodiment, the car is shown to the public from the registration date through the day before the auction.

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<Application for purchase>

[0053]   The server 1 provides purchasers (prior bidders) an information retrieval service in order to show the car to the public.   The retrieval service is preferably constructed such that a purchaser accesses the information showing means 1d via a purchaser terminal 4, and retrieves information from the car database of the information storing means 1g' using a car name, a grade, engine displacement volume, and the like, as keywords.

[0054]   If a car is specified by the retrieval service, the car information is transmitted to the purchaser terminal 4.   Fig. 4 shows an example of the information that can be transmitted to the purchaser terminal 4 in an HTML format.   Additionally, data related to the auction which may follow the predetermined public showing period may be displayed.

[0055]   When a purchaser wishes to bid for a car that they have viewed, the purchaser fills in a membership number and a bid price on the screen and presses (clicks) a "bid" button.   In this way, the purchaser terminal 4 notifies the server 1 of the bid.   The prior bid receiving means 1h receives the notice, and the prior bid data, including as an example, a car management number, a date of bid, a price of bid, and a membership number are stored in the prior bid database in the information storing means 1g'.

[0056]   Then, the car database is checked daily, for example, and, if there is a car that has reached its public showing closing date, showing of the car is terminated, the prior bid data associated with the highest price is sent to the successful bid determining means 5d.

<Auction>

[0057]   With reference to Fig. 3, the management apparatus at the selected auction site 5 displays the car information sent by the auction selecting means 1c' on a displaying means (a site display, etc.) 5b, and an auction is conducted with the

starting price as an initial value.

[0058]   Each time the price is bid up, a bid submission is received by the bid submission receiving means 5c of the management apparatus, and the highest price (auction price) is updated and displayed on the site display 5b.

[0059]   When the auction is completed, the successful bid determining means 5d determines the bidder presenting the highest price to be the successful bidder by comparing the auction price and the prior bid price sent by the server 1. If the auction price is higher than the prior bid price, the successful bid determining means 5d determines that the successful bid has been made at the auction site, and notifies the prior bidder that the prior bidder was not successful.

[0060]   However, if the prior bid price is higher than the auction price, a successful bid price can be calculated by a predetermined rule. For example, the prior bid price itself may be the successful bid price, or an amount calculated by adding a unit price to the auction price may be the successful bid price by providing unit price storing means for storing a unit price of bidding up. Further, if no bid submission is received at the selected auction site 5 and there is a prior bid, the successful bid price may be determined by adding the unit price to an auction starting price by providing the unit price storing means and starting price storing means (in this example, the information storing means 1g') for storing the starting price of the auction.

[0061]   The highest price of the prior bid and the successful bid price may be displayed on the site display 5b.

[0062]   As described above, according to this embodiment, prior bids are invited for a predetermined period to allow purchasers to access article information whenever it suits them, thereby extensively inviting purchasers, and the article is put up to an auction after the lapse of the predetermined period, so that the article can be sold quickly at a

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reasonable price.

[0063] Further, the auction in this embodiment may be any form as long as it is a real time auction in which participants can participate substantially simultaneously, or may be the type in which participants can participate from remote locations as in the auction system described in the Japanese Patent Application Laid-open No. Hei 11-328271, or the type in which auctions are conducted only online (via the Internet).

[0064] In addition, although the bid submission receiving means 5c and the successful bid determining means 5d are provided at each auction site in this embodiment, these means may be provided in the server 1', and configured to receive bid submission from the auction sites 5 via the communicating means 2 and notify the auction sites 5 of a successful bid result, via the communicating means 2.

[0065] Moreover, although the starting price of the auction is fixed in advance in this embodiment, the present invention is not limited in this way. The highest price of the prior bid may be the starting price of the auction. In this case, the successful bid determining means simply determines that, if a bid is made at the auction site 5, then a successful bid has been made, and if no bid is made in the auction site, the prior bidder will be the successful bidder. In this case, identical means may be used as both the prior bid receiving means and the bid submission receiving means.

[0066] In addition, although an example in which a used car is described as an article to be put up to an auction, the present invention is not limited to cars. The article may be anything that has tradability, including real estates and bonds.

[0067] In addition, the server 1 may be a Web server connected to the Internet, which shows the article information, and the like, on the WWW (world Wide Web), and communicates with the seller terminal 3, the purchaser terminal 4 and the auction

sites 5.

Further, the present invention is not limited to the contents
of the above-mentioned embodiments, but can be modified
without departing from the scope and the sprit of the
invention which are described in the appended claims.

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